

"Amateur Radio: Combining communication experience with modern digital techniques."

October 2010

*Jamboree of the Air
CQ Hou Koers
15 to 17 October*



The Tazumal Pyramid in Chalchuapa, El Salvador

The pyramid is the structure behind me, just to clear the confusion. Yes, that is Dennis, YS2/ZS4BS, wearing a ZS8M cap.

Tazumal includes a series of Maya ruins, including ceremonial architecture, which dates to about AD 100 - 1200. The site includes an intricate water drainage system, a few tombs, adjacent minor pyramids, palaces and excavated ritual objects. Tazumal had a long and uninterrupted occupational history, from AD 100 until AD 1200, although its greatest development corresponds to the Classic period (AD 250 - 900). Around AD 900, the Toltec style pyramid in evidence today was constructed; a large ball court was also built at this time. The site was abandoned around AD 1200.

The ruins of Tazumal are considered the most important and best preserved in El Salvador. The artifacts found at Tazumal provide evidence of ancient and active trade between Tazumal and places as far away as Panama and Mexico. The excavated ruins are part of an area covering 10 km² (4 sq mi), much of it buried under the surrounding town. Archaeologists estimate that the first settlements in the area of Chalchuapa date to around 1200 BC.

Well, HF Happenings has been produced in South Africa, New Zealand, Bulgaria, Croatia, Switzerland and El Salvador. Not many newsletters travel around so much!

IARU Administrative Council Reviewed Its Strategy for WRC-12

South African Radio League 1925 - 2010 Suid-Afrikaanse Radioliga
Member Society of the International Amateur Radio Union Region 1
HF Happenings via Yahoo Groups HF_Happenings-subscribe@yahoogroups.com

HF Happenings 424



October

4 Schools open; Closing date SARL VHF/UHF logs
6 World Habitat Day; Closing date SARL Club logs
7 SARL 80 Metre QSO Party
8 Closing date Heritage logs
9/10 AWA Valve AM QSO Party
15 Boss' Day
15/16 CQ Hou Koers
15/17 JOTA
22 Closing 80 m QSO logs
23 Spring QRP Sprint
25 Closing date AWA QSO logs
30/31 CQ WW SSB DX contest

In light of developments since the 2009 Administrative Council (AC) meeting, the Council reviewed and updated International Amateur Radio Union (IARU) positions on relevant agenda items for the 2012 World Radio Communication Conference (WRC-12), as well as desired agenda items for future WRCs.

The AC reviewed the progress on the action plan for developing support for amateur radio frequency allocations, and the plan was updated for the period through WRC-12. The AC of the IARU held its annual meeting on October 1 and 2 in Salinitas, El Salvador.

The AC is responsible for the policy and management of the IARU and consists of the three IARU international officers and two representatives from each of the three IARU regional organizations. SARL President, Dennis Green, attended in his position as IARU Region 1 Secretary. The AC also identified the upcoming meetings of the International Telecommunication Union meetings where IARU representation will be required, and reviewed the plans for representation at these meetings, as well as at WRC-12.

The AC reviewed and updated the working document that sets out the spectrum requirements of the Amateur Radio and Amateur Satellite Services. They identified the need for a new strategy with regard to retaining access to bands above 148 MHz and agreed that a committee of experts will be formed to develop recommendations for the AC.

The full report of the AC meeting will be available for download on www.sarl.org.za from Monday morning.

President's Net on the Air Next Sunday

The SARL President's Net is on the air next Sunday at 19:30. Dennis Green will report back on the IARU Administrative Council meeting and discuss the proposed Radio Regulations which have been posted on the member's section of the SARL Web.

Judging from comments received by the SARL, it appears that many do not understand the process of how regulations are developed and implemented. ICASA follows a process of consultation. It starts with the development of regulations by an ICASA Committee. Once the first draft is compiled, the ICASA Legal department vets it and once the legalization has been sorted out, the draft is submitted to the ICASA council. After approval by the ICASA Council, the draft regulations are published in the Government Gazette for comment. We are at now at this stage. It is now the opportunity to make comment and raise objections to any of the provisions in the draft regulations.

As some of the proposed new regulations change the composition of licenses the SARL has received many questions. What happens to current ZU licence holders who are over 25? Will they lose their licence? The SARL cannot answer this question and will raise this issue in the submission that will be made to ICASA and at the next liaison meeting.

Another misconception is the question of ZRs being converted to ZS and the access to high power. Currently there is a marginal difference in the transmit power of a ZR licence holder and a ZS licence holder. Currently a ZR is permitted 29 dBW and a ZS 26 dBW. The major difference is access to the full amateur radio frequency spectrum. If there is any issue then it is in the area of operating procedure; an issue that has long been discussed for both ZR and ZS licensees. Instructors should perhaps spend more time on operating procedure and perhaps the





HF assessment should be sharpened up. All these are issues to be discussed next Sunday evening.

If your club wishes to link the local repeater to the network, please send a request to armi@sarl.org.za by Monday afternoon including details of the telephone number and repeater frequency and area. Only Telkom landlines can be connected.

If you cannot take part in the discussion on the President's net, you are invited to submit your views and concerns by email to armi@sarl.org.za. Please raise issues in global manner and not personal issues.

Contest Results

Following the publishing of HF Happenings 423, I received an e-mail reprimanding me for not including this person's contest results. However, his e-mail told me why I did not have it in my spreadsheet - "I sent this in the same afternoon with log sheet scans." The word SCAN was the wrong word to use.

Rule 6.a. of the General Rules states, "Participants may submit text file logs and summary sheets instead of written logs, by disk or email. The received log shall be capable of being viewed and printed using Microsoft® Notepad/WordPad, Word or Excel. Documents that are scanned and submitted as JPG or PDF will be deemed as check logs.

Scanned logs automatically go into my check log file.

Twenty-seven logs were received for this contest made up of two multi-operator logs, twenty-four single operator logs and one check log.

Multi-operator stations

1st the West Rand ARC, ZS6WR, 162 points

2nd the Oakdale ARC, ZS1OAK, 102 points

Single operator stations

1st Jan Botha, ZS4JAN, 226 points

2nd Gary Potgieter, ZS5NK, 184 points

3rd Danie Mans, ZS3D, 144 points

4th Hans Kappetijn, ZS6KR, 139 points

5th Pam Momberg, ZS6APT, 134 points (YL)

5th Philip Esterhuizen, ZS4PJ, 134 points

7th Thian de Jager, ZS2Y, 123 points

7th Marius Preston, ZS4MP, 123 points

9th Vidi la Grange, ZS1EL, 122 points

10th Peter Smith, ZS6PJ, 118 points

11th Allan Smith, ZS1AAX, 106 points

12th Pierre van Deventer, ZS6BB, 94 points

13th Mike Lauterbach, ZS5ML, 93 points

14th Geoff Levey, ZS6GRL, 92 points

15th Johan Esterhuizen, ZS4PP, 91 points

16th Mitchel Mynhardt, ZS6YH, 89 points

17th Johan van Vuuren, ZS6JVV, 71 points

18th Dawn Snyders, ZS5ME, 65 points (YL)

19th Derek Stuart, ZS2J, 60 points





20th Bruce Dunn, ZS5XT, 52 points
21th Evan Seligman, ZS6ELI, 42 points
22st David Whitehouse, ZR1DGW, 35 points
23nd Geoff Wagner, ZS5AGM, 28 points
24th Dennis Green, ZS4BS, 21 points

Check log - Philip van Tonder, ZS6PVT

SARL HF CW Contest. The results will be released in next week when I am back in South Africa.

SARL 80 Metre Club Contest - Digital. The committee received five logs for the 80 m digital club contest held on 29 September.

1st West Rand ARC, 31 points - 4 logs
2nd Cape Town ARC, 7 points - 1 log

The results of the past 5 contests are:

1st West Rand ARC, 331 points
2nd ZS Contest Group, 186 points
3rd Antique Wireless Association, 154 points

The last Club Contest is the CW contest on Wednesday 24 November 2010.

Contest Calendar

This week's contests compiled by Bruce Horn, WA7BNM. The period covered is 04 to 11 October 2010.

ARS Spartan Sprint
01:00 - 03:00 UTC 5 October
Mode: CW
Bands: 80, 40, 20, 15 and 10 m
Classes: Skinny; Tubby
Max power: 5 watts
Exchange: RST and (state/province/country) and Power
Work stations: Once per band
Submit logs by: 7 October 2010
E-mail logs to:
spartansprint[at]yahoo[dot]com
Mail logs to: (none)
Find rules at:
http://adventure-ra-dio.org/wiki/index.php?title=Spartan_Sprint_Rules

SARL 80 m QSO Party
17:00 - 20:00 UTC 7 October

Mode: SSB
Bands: 80 m Only
Classes: Single Op
Exchange: RS, serial no and Grid Locator or QTH
QSO Points: 10 points per QSO with South African station; 15 points per QSO with non-South African station
Multipliers: (none)
Score Calculation: Total score = total QSO points
Submit logs by: 22 October 2010
E-mail logs to: zs5lp[at]gmail[dot]com
Mail logs to: Durban Amateur Radio Club, 7 Brownlee Place, Bluff, 4052
Find rules at:
<http://www.sarl.org.za/public/contests/SARL%202010%20Contest%20Manual.pdf>

YLRL DX/NA YL Anniversary Contest





14:00 UTC 8 October to 02:00 UTC 10 October

Mode: CW, SSB, Digital

Bands: Any

Classes: (none)

Max operating hours: 24

Exchange: Serial no, RS and ARRL Section, province or country

Work stations: Once per band

QSO Points: W/VE Stations: 1 point per W/VE QSO; DX Stations: 2 points per DX QSO; DX Stations: 1 point per QSO with same continent; DX Stations: 2 points per QSO with different continent

Multipliers: Each section, province, country once

Power factor: x1,5 for 200 W or less

Score Calculation: Total score = total QSO points x total mults x power factor

Submit logs by: 8 November 2010

E-mail logs to: n0wbv[at]earthlink[dot]net

Mail logs to: Cheryl Muhr, NOWBV, PO Box 342, Littleton, CO 80160, USA

Find rules at:

<http://www.ylrl.org/ylcontests.html>

Makrothen RTTY Contest

00:00 - 07:59 UTC and 16:00 - 23:59 UTC 9 October and 08:00 - 15:59 UTC 10 October

Mode: RTTY

Bands: 80, 40, 20, 15 and 10 m

Classes: Single Op Single Xcvr (Low/High); Single Op Multi-Xcvr (Low/High); Multi-Op Single Xcvr (Low/High); Multi-Op Multi-Xcvr (Low/High)

Max power: HP: >100 watt; LP: 100 watt

Exchange: 4-character grid square

Work stations: Once per band

QSO Points: 1 point per km distance between stations for each QSO; Multiply QSO points by 1,5 for 40 m QSOs or 2,0 for 80m QSOs; 100 points per QSO between stations in same grid square (no other points or multiplier)

Multipliers: (none)

Score Calculation: Total score = total QSO points

Submit logs by: 15 November 2010

E-mail logs to: tmc-rtty[at]arcor[dot]de

Mail logs to: (none)

Find rules at:

http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/TMC_Rules.html

CQ SA SSB Contest

00:00 UTC 9 October to 24:00 UTC 10 October

Mode: SSB

Bands: 160, 80, 40, 20, 15 and 10 m

Classes: Single Op All Band (Low/High); Single Op Single Band (Low/High); Multi-Single; Multi-Multi

Max operating hours: Single-Op: 36 hours with off times of at least 60 minutes; Multi-Op: 48 hours

Max power: HP: 1 000 watt; LP: 100 watt

Exchange: RS and serial no

Work stations: Once per band

QSO Points: 1 point per QSO with same country; 2 points per QSO with different country same continent; 3 points per QSO with different continent; non-SA only: 10 points per QSO with SA

Multipliers: Each continent once per band; Each country once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 10 November 2010

E-mail logs to: (none)

Upload log at:

<http://www.brcontest.com/cqsa/up/>

Mail logs to: (none)

Find rules at:

http://brcontest.com/modules/tinyd0/content/cqsa_ssb_us-en2010.pdf

Oceania DX CW Contest

08:00 UTC 9 October to 08:00 UTC 10 October

Mode: CW

Bands: 160, 80, 40, 20, 15 and 10 m

Classes: Single Op All Band (Low/High); Single Op Single Band (Low/High); Multi-One; Multi-Two; Multi-Multi; SWL

Max power: HP: 1 500 watt; LP: 100 watt

Exchange: RST and serial no

Work stations: Once per band





QSO Points: 20 points per 160 m QSO; 10 points per 80 m QSO; 5 points per 40 m QSO; 1 point per 20 m QSO; 2 points per 15 m QSO; 3 points per 10 m QSO

Multipliers: Each prefix once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 10 November 2010

E-mail logs to:

[cw\[at\]oceaniadxcontest\[dot\]com](mailto:cw[at]oceaniadxcontest[dot]com)

Mail logs to: Oceania DX Contest, c/o Wellington Amateur Radio Club Inc., PO Box 6464, Wellington 6030, New Zealand

Find rules at:

<http://www.oceaniadxcontest.com/rules.pdf>

WAB HF Phone

12:00 UTC 9 October to 12:00 UTC 10 October

Mode: Phone

Bands: 20, 15 and 10 m

Classes: Single Op (Fixed/Mobile/Portable);

Multi-Op (Fixed/Mobile/Portable); QRP;

SWL (Fixed/Mobile/Portable)

Max power: non-QRP: >10 watt; QRP: 10 watt

Exchange: British Isles: RS., serial no and WAB square; Other: RS., serial no and country

QSO Points: (see rules)

Multipliers: (see rules)

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 31 October 2010

E-mail logs to: [aebbooks\[at\]ntlworld\[dot\]com](mailto:aebbooks[at]ntlworld[dot]com)

Mail logs to: Tony Beardsley, G3XKT, 14 York Avenue, Sandiacre, Nottingham NG10 5HB, United Kingdom

Find rules at:

<http://wab.intermip.net/Contest%20Rules.php#HFRules>

Scandinavian Activity SSB Contest

12:00 UTC 9 October to 12:00 UTC 10 October

Mode: SSB

Bands: 80, 40, 20, 15 and 10 m

Classes: Single Op Single Xmtr (QRP, Low or High); Single Op Single Band; Multi-Single;

Multi-Multi; SWL

Max power: HP: >100 watt; LP: 100 watt;

QRP: 5 watts

Exchange: RST and serial no

Work stations: Once per band

QSO Points: Scandinavian: 2 points per QSO with EU; Scandinavian: 3 points per QSO with non-EU; EU: 1 point per QSO with Scandinavian station; non-EU: 1 point per QSO with Scandinavian station on 20, 15, 10 m; non-EU: 3 points per QSO with Scandinavian station on 80 and 40 m

Multipliers: Scandinavian: Each DXCC country once per band; non-Scandinavian: Each Scandinavian call area once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 9 November 2010

Upload log at:

<http://www.sactest.net/hflogupload.php>

Mail logs to: SACSSB, Peter Vestergaard, OZ5WQ, Vestervej 74, DK-4960 Holeby, Denmark

Find rules at: <http://www.sactest.net/>

Pennsylvania QSO Party

16:00 UTC 9 Oct to 05:00 UTC 10 Oct and 13:00 - 22:00 UTC 10 Oct

Mode: CW, Phone, PSK, RTTY

Bands: 160, 80, 40, 20, 15, 10, 6 and 2 m

Classes: Single Op (QRP/Medium/High); Single Op CW (150W); Multi-Single; Multi-Multi; Single Op Portable; M/S Portable; M/M Portable; Mobile; Rover

Max power: HP: >150 watt; MP: 150 watt;

QRP: 5 watts

Exchange: PA: Serial No. and County; non-PA: Serial No. and ARRL/RAC Section

Work stations: Once per band per mode per county

QSO Points: 2 points per CW QSO; 1 point per SSB/FM QSO; 2 points per PSK/RTTY QSO; PA Mobile Bonus: 500 points for each county operated from with minimum of 10 QSOs; PA Rover Bonus: 500 points for each location operated from with minimum of 10 QSOs K3MJW Bonus: 200 points for each QSO with K3MJW

Multipliers: PA Stations: Each ARRL section, RAC section, PA county once; PA Stations:





One DX country; non-PA Stations: Each PA county once

QRP Bonus: multiply score by 2 for QRP operation

Score Calculation: Total score = (total QSO points x total mults x bonus mult) and bonus points

Submit logs by: 15 November 2010

E-mail logs to:

[paqsolog\[at\]nittany-arc\[dot\]net](mailto:paqsolog[at]nittany-arc[dot]net)

Mail logs to: PA QSO Party 2008, c/o NARC, PO Box 614, State College, PA 16804-0614, USA

Find rules at:

<http://www.nittany-arc.net/paqs09rules.html>

Arizona QSO Party

16:00 UTC 9 Oct to 06:00 UTC and 14:00 - 23:59 UTC 10 Oct

Mode: CW, Phone, Digital

Bands: 80, 40, 20, 15, 10, 6, 2m

Classes: Single Op Single Transmitter (QRP, Low or High); Multi/Single (QRP/Low/High); Mobile (QRP/Low/High); County Expedition (QRP/Low/High)

Max power: HP: >150 watt; LP: 150 watt; QRP: 5 watts

Exchange: AZ: RS(T) and state and county; non-AZ: RS(T) and (state/province/country)

Work stations: Once per band per mode per county

QSO Points: 1 point per phone QSO; 2 points per CW/digital QSO; Bonus: 100 points for at least one QSO with W7SA

Multipliers: AZ: Each US state, province and country once; non-AZ: Each AZ county once

Score Calculation: Total score = (total QSO points x total mults) and bonus points

Submit logs by: 31 October 2010

E-mail logs to: [logs\[at\]azqsoparty\[dot\]org](mailto:logs[at]azqsoparty[dot]org)

Mail logs to: Catalina Radio Club, c/o Gary Keck, PO Box 18135, Tucson, AZ 85731, USA

Find rules at:

<http://www.azqsoparty.org/rules.html>

EU Autumn CW Sprint

16:00 - 19:59 UTC 9 Oct

Mode: CW

Bands: 80, 40, 20m

Classes: Single Op (Low/High)

Max power: HP: >100 W; LP: 100 W

Exchange: [your call sign] and [other station's call sign] and Serial No and Name

Work stations: Once per band

QSO Points: 1 point per QSO

Multipliers: (none)

Score Calculation: Total score = total QSO points

Submit logs by: 24 October 2010

E-mail logs to: [eusprint\[at\]kkn\[dot\]net](mailto:eusprint[at]kkn[dot]net)

Mail logs to: Dave Lawley, G4BUO, Carramore, Coldharbour Road, Penshurst, Kent TN11 8EX, England

Find rules at: <http://www.eu-sprint.com/>

FISTS Fall Sprint

17:00 - 21:00 UTC 9 Oct

Mode: CW

Bands: 80, 40, 20, 15 and 10 m

Classes: QRP; QRO; Club

Max power: QRO: >5 watt; QRP: 5 watt

Exchange: FISTS: RST and (state, province or country) and first name and FISTS No; non-FISTS: RST and (state, province or country) and first name and power

Work stations: Once per band

QSO Points: 5 points per QSO with FIST member; FIST members: 2 points per QSO with non-FIST member

Multipliers: Each US state and VE province once; Each DXCC country once

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 8 November 2010

E-mail logs to: [wa1lad\[at\]cox\[dot\]net](mailto:wa1lad[at]cox[dot]net)

Mail logs to: Gil Woodside, WA1LAD, 30 Hilltop Ave., West Warwick, RI 02893-2825, USA

Find rules at:

<http://www.fists.org/sprints.html>

North American RTTY Sprint

00:00 - 04:00 UTC 10 October

Mode: RTTY

Bands: 80, 40, 20 m

Classes: Single Op (QRP/Low/High)

Max operating hours: 4 hours





Max power: HP: 1 500 watt; LP: 100 watt;
QRP: 5 watts
Exchange: [other station's call] and [your call] and [serial no.] and [your name] and [your state/province/country]
Work stations: Once per band
QSO Points: NA station: 1 point per QSO
non-NA station: 1 point per QSO with an NA station
Multipliers: Each US state (including KL7) once; Each VE province once; Each North American country (except W/VE) once
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 16 October 2010
E-mail logs to: (see rules, web upload preferred)
Upload log at:
<http://www.ncjweb.com/sprintlogssubmit.php>
Mail logs to: Ed Muns, W0YK, PO Box 1877, Los Gatos, CA 95031-1877, USA
Find rules at:
<http://www.ncjweb.com/sprintrules.php>

SKCC Weekend Sprint
00:00 - 24:00 UTC 10 October
Mode: CW
Bands: 160, 80, 40, 20, 15, 10 and 6 m
Classes: (none)
Exchange: RST, name, state, province or country and SKCC no or "NONE"
Work stations: Once per band
QSO Points: 1 point per QSO
Bonus Points: (see rules)
Multipliers: Each state, province or country once
Score Calculation: Total score = (total QSO points x total mults) and bonus points
Submit logs by: 15 October 2010
Post log summary at:
<http://www.skccgroup.com/sprint/wes/wes-submit.html>
Mail logs to: (none)
Find rules at:
<http://www.skccgroup.com/sprint/wes/>

10-10 International 10-10 Day Sprint
00:01 - 23:59 UTC 10 October
Mode: All
Bands: 10 m Only
Classes: Individual; Club; QRP
Max power: non-QRP: >5 watt; QRP: 5 watt
Exchange: Name, state, province or country and 10-10 number
Work stations: Once
QSO Points: 1 point per QSO with a non-member; 2 points per QSO with a 10-10 member
Multipliers: (none)
Score Calculation: Total score = total QSO points
Submit logs by: 25 October 2010
E-mail logs to:
[tentencontest\[at\]roadrunner\[dot\]com](mailto:tentencontest[at]roadrunner[dot]com)
Mail logs to: Dan Morris, KZ3T, 131 Valencia Lane, Statesville, NC 28625, USA
Find rules at:
<http://www.ten-ten.org/Forms/QSOPartyRulesRevised.pdf>

UBA ON CW Contest
06:00 - 10:00 UTC 10 October
Mode: CW
Bands: 80 m Only
Classes: (none)
Exchange: RS and serial no
QSO Points: 3 points per QSO with Belgian station
Multipliers: Each UBA Section
Score Calculation: Total score = total QSO points x total mults
Submit logs by: 31 October 2010
E-mail logs to: [ubaon\[at\]uba\[dot\]be](mailto:ubaon[at]uba[dot]be)
Mail logs to: Leon Welters, ON5WL, Borgstraat 80, B-2580 Beerzel, Belgium
Find rules at:
http://www.uba.be/sites/default/files/uploads/hf_contests/ontest_en.pdf

Next Week's Contests

NAQCC Straight Key/Bug Sprint, 00:30 - 02:30 UTC 13 October





CWops Mini-CWT Test, 11:00 - 12:00 UTC and 19:00 - 20:00 UTC 13 October and 03:00 - 04:00 UTC 14 October

RSGB 80 m Club CW Sprint, 19:00 - 20:30 UTC 14 October

JARTS WW RTTY Contest, 00:00 UTC 16 October to 24:00 UTC 17 October

ARCI Fall QSO Party, 12:00 UTC 16 October to 24:00 UTC 17 October

New York QSO Party, 14:00 UTC 16 October to 0200Z 17 October

Iowa QSO Party, 14:00 - 23:00 UTC 16 October

Worked All Germany Contest, 15:00 UTC 16 October to 14:59 UTC 17 October

Feld Hell Sprint, 20:00 - 22:00 UTC 16 October

PODXS 070 Club 160m Great Pumpkin Sprint, 20:00 local 16 Oct to 02:00 local 17 October

Asia-Pacific Fall CW Sprint, 00:00 - 02:00 UTC 17 October

Illinois QSO Party, 17:00 UTC 17 October to 01:00 UTC 18 October

Run for the Bacon QRP Contest, 01:00 - 03:00 UTC 18 October

ARRL School Club Roundup, 13:00 UTC 18 October to 24:00 UTC 22 October

Items used with acknowledgement to The ARRL Letter, Amateur Radio Newslines, OPDX Bulletin, 425 DX Bulletin, DXNL Bulletin, ARRL DX News, WIA-News, the RSGB News, Southgate ARC and Pete's DX Newsdesk.

Newsletter editors are most welcome to use material from HF Happenings, just remember to acknowledge the source (which could be any one of the names mentioned above). HF Happenings can be provided in MS Word format.

